

The opinion in support of the decision being entered today was **not** written for publication and is **not** binding precedent of the Board.

Paper No. 20

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte LEONARD J. FEATHERS

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Appeal No. 1999-2781  
Application No. 08/656,299

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ON BRIEF

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Before COHEN, FRANKFORT, and JENNIFER D. BAHR, Administrative Patent Judges.

FRANKFORT, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1 through 33. Subsequent to the Notice of Appeal, appellant filed an amendment (Paper No. 12, August 20, 1998) canceling claims 17 through 19 and 21 through 24, and amending claims 13 through 16 and 20. As a result of the examiner's entry of this amendment, only claims 1 through 16, 20 and 25 through 33 remain for our consideration on appeal.

Appellant's invention relates to a speed responsive coupling device (shown schematically in Figs. 3a and 3b) and to a fall arrest apparatus that incorporates such a speed responsive coupling device (e.g., as seen in either Fig. 1 or Fig. 5). As noted on page 4 of the specification,

at the heart of this invention, lies the concept of using a ratchet engaging pawl with the pawl being arranged as a mechanical toggle switch. Such a switch is one in which the switching member, here the pawl, is spring biased to remain in one of two stable or quasi-stable conditions. Switching is effected by causing the switching member, the pawl, to pass through a metastable position between those two conditions, whereupon it will flip over to the other condition. In the instant case, the rocker which is linked to the pawl, and is preferably an integral part of the pawl, rocks as the first member, e.g. the drum on which safety line is wound, rotates. The arrangement is such that during such rotation at speeds below a threshold value, for example corresponding to line withdrawal at rates appropriate to accommodate normal movements of a worker, this rocking is insufficient to push the pawl into or past its metastable state, and thus the pawl remains in the free condition and rotation of the drum is permitted: in case of rotation at speeds above the threshold value, however, the rapidity of the rocking motion imparted gives such momentum and energy to the pawl and rocker that the pawl is carried into its metastable position and then flips over into the lock condition where it engages the ratchet to prevent further rotation.

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Independent claims 1, 20, 25 and 30 are representative of the subject matter on appeal and a copy of those claims may be found in the Appendix to appellant's brief.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Fertier 1964	3,150,744	Sep. 29,
Fritsche 1969	3,442,466	May 6,
Kell 2, 1975	3,923,269	Dec.
Ellis et al. (Ellis) 1985	4,538,703	Sep. 3,
Olson et al. (Olson) 1986	4,589,523	May 20,
Willey 6, 1988	4,768,733	Sep.

Claims 1 through 10, 12, 13 and 15 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Kell (Fig. 11), Fritsche, or Fertier.

Claims 8 and 9 stand rejected under 35 U.S.C. § 103 as being unpatentable over Fertier or Kell in view of Olson.

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Claims 1 through 13, 15, 20, 25 through 28 and 30 through 33 stand rejected under 35 U.S.C. § 103 as being unpatentable over Kell (Fig. 11), Fritsche, or Fertier in view of Willey.

Claims 14 and 16 stand rejected under 35 U.S.C. § 103 as being unpatentable over Kell (Fig. 11), Fritsche, or Fertier in view of Ellis.

Claims 14, 16 and 29 stand rejected under 35 U.S.C. § 103 as being unpatentable over Kell (Fig. 11), Fritsche, or Fertier and Willey as applied to claims 1 and 25 above, and further in view of Ellis.

Claims 8 and 9 stand rejected under 35 U.S.C. § 103 as being unpatentable over Kell (Fig. 11), Fritsche, or Fertier and Willey as applied to claim 1 above, and further in view of Olson.<sup>1</sup>

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<sup>1</sup> Given appellant's comments in the brief (page 5) and the fact that the rejection of claims 13 through 16 under 35 U.S.C. § 112, second paragraph, found on page 2 of the final rejection (Paper No. 9) was not repeated in the examiner's answer, we conclude that this rejection has been withdrawn by

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Rather than reiterate the examiner's full statement of the above-noted rejections and the conflicting viewpoints advanced by the examiner and appellant regarding those rejections, we make reference to the examiner's answer (Paper No. 18, mailed May 4, 1999) for the examiner's reasoning in support of the rejections, and to appellant's substitute brief (Paper No. 17, filed February 8, 1999) for the arguments thereagainst.

#### OPINION

In reaching our decision in this appeal, we have given careful consideration to appellant's specification and claims, to the applied prior art references, and to the respective positions articulated by appellant and the examiner. As a consequence of our review, we have made the determinations which follow.

Looking first to the examiner's rejection of claims 1 through 10, 12, 13 and 15 under 35 U.S.C. § 102(b) as being anticipated by Kell (Fig. 11), Fritsche, or Fertier, we first

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the examiner and is not to be considered in this appeal. See Ex parte Emm, 118 USPQ 180 (PO BdApp 1957).

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observe that the examiner has not once during the entire prosecution of this application indicated exactly how the enumerated claims are considered to be readable on the three different references applied. Our only insight into the position of the examiner is found on page 5 of the answer where the examiner has 1) indicated that the three applied references "all show pawls arranged as a mechanical toggle switch in that their pawls comprises [sic] an elbow like joint consisting of two arms," and 2) also put forth an interpretation of the language found in independent claim 1 that "[t]he phrase 'either', as set forth in claim 1, may be interpreted as the pawl being biased to remain in one of a selected 'free' and 'lock' condition but not necessarily both conditions." In addition, the examiner has for the first time in the answer (page 5) pointed to Figure 3 of Fertier, urging that this figure shows "a pawl (39) which is biased by spring (41) to remain in a free condition, and a spring, connected (42), which biases the pawl to remain in a locked condition."

Appellant's response to the examiner's position (brief, pages 9-10) is that the examiner has adopted a position that

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is inconsistent with appellant's specification, which overlooks the recited conjunction "and" and overlooks the fact that the element in question in claim 1 is recited as a mechanical toggle switch. In this regard, appellant argues that the patents to Kell, Fritsche and Fertier applied by the examiner disclose pawls which are biased in a single direction, toward a "free" condition, and cannot be said to be biased toward either of two conditions as is required of the pawl "arranged as a mechanical toggle switch" in claim 1 on appeal. We agree with appellant.

In understanding the language of appellant's claim 1 on appeal that the "pawl is arranged as a mechanical toggle switch" which is biased to assume and remain in either of a "free" condition and a "lock" condition, we have turned to appellant's specification at page 4 (quoted above) where appellant has indicated that the pawl arranged as a mechanical toggle switch is "at the heart of this invention," and we have interpreted the language of claim 1 on appeal to require a pawl that is arranged to function as described in appellant's specification. More particularly, a pawl that is "arranged as

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a mechanical toggle switch" is one where the pawl is spring biased to remain in one of two stable or quasi-stable conditions and where the pawl is caused to pass through a metastable position between those two conditions, whereupon it will flip over to the other condition and remain there under the bias of the spring until such time that it is again caused to pass through the metastable position, whereupon it will return to the first condition and remain there under the bias of the spring.

Kell, in Figure 11, shows a pawl member (232) which is biased by a spring (248) such that the tail portion or abutment (236) is urged towards the ratchet wheel (246) and the nose portion or tooth (234) of the pawl is held clear of the teeth of the ratchet wheel. Similarly, Fritsche shows (in Figure 2) a pawl (17) biased by a spring (22) such that the tail portion (21) is urged towards the ratchet wheel (18) and the nose portion (23) of the pawl is held clear of the teeth of the ratchet wheel. The pawls of both Kell and Fritsche are clearly biased to assume and remain in a "free" condition where the reel for the seat belt is permitted to rotate

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relative to the housing of the reeling device. However, these pawls are not also biased to assume and remain in a "lock" condition in which the pawl engages the ratchet wheel to disallow such relative rotation and wherein the pawl is caused to pass through a metastable position between those two conditions, whereupon it will flip over to the other condition and remain there under the bias of the spring until such time that it is again caused to pass through the metastable position, whereupon it will return to the first condition and remain there under the bias of the spring. Thus, it is clear to us that the pawls of Kell (Fig. 11) and Fritsche are not "arranged as a mechanical toggle switch" which is biased to assume and remain in either of a "free" condition and a "lock" condition as required in appellant's claim 1 on appeal.

In accordance with the foregoing, the examiner's rejection of independent claim 1 on appeal under 35 U.S.C. § 102(b) based on Kell (Fig. 11) or Fritsche will not be sustained. It follows that the examiner's rejection of claims 2 through 10, 12, 13 and 15, which depend from claim 1, on the same basis will likewise not be sustained.

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With regard to the examiner's rejection of claims 1 through 10, 12, 13 and 15 on appeal under 35 U.S.C. § 102(b) based on Fertier, we note that the pawl (39) seen in Figures 1 and 3 of this patent is not "arranged as a mechanical toggle switch" which is biased to assume and remain in either of a "free" condition and a "lock" condition as we have interpreted that language above, and accordingly we will not sustain this rejection. The mere fact that the pawl (39) is biased to assume and remain in a "free" condition by spring (41) and that the user can override that condition by operating the hand release (42) to engage the pawl in the notches of the ratchet wheel, and thus stop rotation of the sheave or reel (4), does not mean that the pawl (39) is "arranged as a mechanical toggle switch" as required in appellant's claim 1 on appeal and that it will operate in the particular manner set forth in appellant's claim 1 and as we have determined above is required of a pawl that is "arranged as a mechanical toggle switch." In the situation where the strength of the rocking motion imparted to the pawl (39) of Fertier is sufficient to cause the rocker to flip the pawl to the lock condition (col. 3, lines 6-14), we note that the pawl is not

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biased by the spring (41), or the other spring associated with the hand release (42), to remain in the lock condition, as we consider to be required of the pawl in appellant's claim 1 on appeal.

We also will not sustain the examiner's rejection of claims 8 and 9 under 35 U.S.C. § 103 as being unpatentable over Fertier or Kell in view of Olson. In addition to the fact that we see no basis (teaching, suggestion or motivation) which would have led one of ordinary skill in the art to utilize the brake members (150, 164) of Olson in the seat belt inertia reel of Kell or the safety elevator of Fertier, we note that the addition of any such brake members to either Kell or Fertier would not overcome or provide for the deficiency in the primary references already noted above with regard to appellant's independent claim 1, from which claims 8 and 9 ultimately depend.

As for the examiner's rejection of claims 1 through 13, 15, 20, 25 through 28 and 30 through 33 under 35 U.S.C. § 103 as being unpatentable over Kell (Fig. 11), Fritsche, or

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Fertier in view of Willey, we share appellant's view (brief, pages 10-12) that given the entirely different operational characteristics and requirements of the "impact" type pawl mechanisms in Kell

(Fig. 11), Fritsche and Fertier vis-a-vis the "shifting mass" type actuation mechanism of Willey, there would appear to be no reason or suggestion for one of ordinary skill in the art to attempt to combine the toggle switch type pawl (30) of Willey with the direct actuation devices of Kell, Fritsche, or Fertier. In this regard, we are of the opinion that the examiner has utilized impermissible hindsight derived from appellant's own disclosure and claims in attempting to combine the disparate teachings of Willey with those of Kell, Fritsche, or Fertier.

In addition, with particular regard to independent claims 25 and 30 on appeal, we consider that the examiner has failed to properly interpret the "toggled biasing means" of these claims in accordance with 35 U.S.C. § 112, sixth paragraph. As was made clear in In re Donaldson Co. Inc., 16 F.3d 1189,

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1191, 29 USPQ2d 1845, 1848 (Fed. Cir. 1994), the sixth paragraph of 35 U.S.C.

§ 112 permits an applicant to express an element in a claim for a combination as a means or step for performing a specified function without the recital of structure, materials or acts in support thereof, and mandates that such a claim limitation

"shall be construed to cover the corresponding structure, materials, or acts described in the specification or equivalents thereof."

In this case, it is clear to us, as has been urged by appellant on pages 13-15 of the brief, that the pawl arrangements of the applied prior art references are not the same as that described in appellant's specification and also that the examiner has not in any way attempted to articulate any reasoning as to why the structure of the applied references, particularly that of Willey, should be considered to be an equivalent of that which is set forth in appellant's specification. For this additional reason, we refuse to sustain the examiner's rejection of claims 25 and 30, and of claims 26 through 28 and 31 through 33 which, respectively, depend therefrom.

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Regarding the examiner's rejection of claims 14 and 16 under 35 U.S.C. § 103 as being unpatentable over Kell (Fig. 11), Fritsche, or Fertier in view of Ellis, and the rejection of claims 14, 16 and 29 under 35 U.S.C. § 103 as being unpatentable over Kell (Fig. 11), Fritsche, or Fertier and Willey as applied to claims 1 and 25 above, and further in view of Ellis, it is the examiner's position (answer, page 4) that Ellis shows a dissipating unit and that it would have been obvious to one of ordinary skill in the art to provide Kell (Fig. 11), Fritsche, or Fertier, or those patents as modified by Willey, with such a unit for cushioning shock loads. Our first problem here is that the examiner has not identified any component or components in Ellis which he considers to be the "dissipating unit," and has also not provided any clear rationale as to why one of ordinary skill in the art would have been led to modify the seat belt reels of Kell and Fritsche, or the safety elevator of Fertier, or those references as further modified by Willey, to include any such "dissipating unit." Moreover, even if the applied prior art were to be modified to include a dissipating unit, we remain of the view that the resulting structure would not be

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that which is claimed by appellant, since none of the applied references teaches, or in any way suggests, a pawl that is both a) rocker-actuated and b) biased like a mechanical toggle switch.

With further regard to the examiner's rejection of claims 8 and 9 under 35 U.S.C. § 103 as being unpatentable over Kell (Fig. 11), Fritsche, or Fertier and Willey as applied to claim 1 above, and further in view of Olson, we observe that there is nothing in Olson which provides for that which we have discussed above as lacking in Kell, Fritsche, Fertier and Willey as applied against independent claim 1. Thus, the examiner's rejection of dependent claims 8 and 9 on this basis will not be sustained.

To summarize our decision, we again note that the examiner's rejection of claims 1 through 10, 12, 13 and 15 under 35 U.S.C.

§ 102(b) as being anticipated by Kell (Fig. 11), Fritsche, or Fertier has not been sustained, and that each of the

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examiner's rejections of the appealed claims under 35 U.S.C. §  
103 has also not been sustained.

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Accordingly, the decision of the examiner rejecting claims 1 through 16, 20 and 25 through 33 on appeal is reversed.

REVERSED

IRWIN CHARLES COHEN	)	
Administrative Patent Judge	)	
	)	
	)	
	)	
	)	BOARD OF PATENT
CHARLES E. FRANKFORT	)	APPEALS
Administrative Patent Judge	)	AND
	)	INTERFERENCES
	)	
	)	
JENNIFER D. BAHR	)	
Administrative Patent Judge	)	

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MAU AND KRULL, P.A.  
1250 MOORE LAKE DRIVE EAST  
SUITE E  
FRIDLEY, MN 55432

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REVERSED

Prepared: September 24, 2001